KANT'S CRITIQUE OF PURE REASON

Immanuel Kant's Critique of Pure Reason. In Commemoration of the Centenary of its First Publication. Translated into English by F. Max Müller. With an Historical Introduction by Ludwig Noiré. Two Vols. (London: Macmillan and Co., 1881.)

THE records of science and philosophy during the past few years have been especially fertile in indications of a desire to place the relations of these two departments of inquiry upon a better footing than that of their former history. The desire has its source not in a spirit of concession but in a consciousness of necessity. A deeper criticism of conceptions with which in scientific investigation it is not possible to dispense, has brought several of its chief apostles face to face with fundamental obscurities and even contradictions which seem to cast doubt upon the validity of these conceptions. On the other hand philosophy has of late been coming into extensive contact with results obtained by scientific methods, and has been compelled either to modify its position, or go to the wall. The result is that attention has been increasingly directed to that critical examination of the nature of human knowledge, which claims on its negative side to have finally destroyed the old metaphysics and assigned definite limits to investigation, on its positive side to have exhibited these limits as arising out of the ultimate constitution of mind. The translation, just published, of the "Kritik der reinen Vernunft," is one of the latest contributions to the literature of this subject. The cry of "Back to Kant" which has of late years been heard so frequently in this country and abroad, has been responded to by Prof. Max Müller with two well-appointed volumes. Of these the first contains the translator's preface, an "Historical Introduction" by Prof. Noiré, and a translation of those passages of the second edition of the "Kritik," which differ from the corresponding passages in the first. The second volume consists of the translation of the first edition. The merits of the introductions and translations will be best estimated after the consideration—as far as the compass of a review will allow—of Kant's position.

To understand the critical philosophy, it is essential to realise that its problem and subject-matter are entirely different from any thing that is or can be dealt with by science in the ordinary acceptation of the term, and in particular from the investigations of physiological or other psychology. Science deals with what it is customary in our aspect to call mind, and in another cerebral organisation, and inquires into the relations of this to the surrounding environment. It seeks to lay bare the mechanism of perception and ideation, and to exhibit the complete dependence of mental upon cerebral functions. And of late years it has pretty well justified its title to the exclusive occupation of the field as against the old introspective psychology. Mind and its environment are alike the objects of and given in what may be indifferently spoken of as knowledge, consciousness, or experience. That is to say, they presuppose knowledge (to use the appellation which is perhaps least encumbered with question-begging associations) as that through which, like everything else, they exist, and in which the meaning of existence is to be found. The old Berkeleian reduction of *esse* to *percipi* is matter of common knowledge, and the leaders of scientific thought show a very proper disposition to treat it as a truism. For the statement that the universe in ultimate analysis is reducible to a succession of states or groups of states of consciousness, amounts to no more than the statement that the universe exists, and may be dismissed as outside the region of scientific questions in exactly the same sense as is this assumption. But if the step from Berkeley to Hume be taken, and existence regarded as the "impressions and ideas" of a particular individual, whose consciousness itself exists only so far as it is the object of knowledge, there ensue logical consequences of the gravest description. The inquirer is then confronted with the conclusion that the universe in so far as real is nothing more than an arbitrary sequence of phases of his own mind, as to which there is not the remotest reason for believing that the uniformity of the past will be resembled in the events of the future. Scientific and indeed all propositions, particular as well as general, become a delusion and self-consciousness an unintelligible deception. Since Hume's "Treatise" was published, it has been characteristic of his would-be interpreters, until within the last few years, to misunderstand him, of scientific men to ignore him, and of that succession of distinguished writers who have sought to apply the canons of scientific method to the problems of philosophy, in a somewhat perplexing fashion to do both. Of late the significance of Hume's teaching has been better understood. Men have come to see that if reality consists in ultimate analysis of a succession of sensations which, existing only in so far as they are felt, cannot be connected excepting by a purely subjective process, they must accept the logical consequences that not only is the belief in a uniform constitution of nature no longer tenable, but that the subjective semblance of such a belief is as incapable of being accounted for as the fact itself. This was the teaching of Kant, and those who seek its detailed justification and the proof that Hume did more than show the unreliability of general propositions, will do well to turn to the pages of the late Mr. Green and of Mr. Arthur Balfour. It is characteristic of Kant, that although he grasped the serious and self-destructive character of Hume's conclusion as to the impossibility of knowledge much more fully than its originator, he yet speaks of it as though it were of importance, only because it detracted from the supposed necessary truth of mathematical and causal relations. He has accordingly misled the majority of his critics into the unfortunate idea, that in denying the necessity of these relations, they have displaced the foundation of the critical system. The problem stood thus. It was clear that existence had no meaning except the being perceived by an actually or possibly percipient consciousness; and the only known form of such a consciousness was the individual self. But to say that existence meant the being a mode of the consciousness of the individual self, involved the contradiction of facts by the implicit denial of the possibility of even a semblance of knowledge. There was only one alternative: to recognise that the self in which the meaning of existence was to be sought was not the finite self disclosed in experience—an apparent point in a boundless expanse, from which it was distinguished only by the fact of its being always "here and now," but constructive

thought, which was always subject and never object in knowledge, of which it was wrong to predicate existence, because it was above the categories of existence in that only as its object could things be said to be. For Kant, such an intellectual activity was something very different from that "unknowable" of which so much has been written. Of the "unknowable" it may be said, that although it exists, is a cause and so forth, it can never be intelligible to a finite mind, but it is none the less the object as distinguished from the subject of thought.

Kant's (as the time went) great knowledge of physical science no doubt contributed to cause him to revolt keenly against Hume's apotheosis of the individual self. He had anticipated, and to a surprising degree grasped, the modern conception of evolution. He had worked out, independently of Laplace, the mechanical theory of the solar system, and had enunciated the hypothesis of development in the organised world. For him there was no possibility of supernatural interference, and Man was but the last link in a gradually evolved chain of life. He could not assent to conclusions which assigned to an individual consciousness—itself but a point in the boundless immensity of space and time—the position of being the foundation of the whole phenomenal universe, and which regarded knowledge as a fiction. He saw clearly enough that the problem was not an ordinary scientific problem of relations within experience, but the problem as to the constitution of experience itself. In science (as indeed in metaphysics) we are always concerning ourselves with some conceivable object of knowledge, and we assume that there is no question about the conditions of that experience in which that object is actually or conceivably included as a part. But Kant's problem was that of knowledge itself, with the relations of space, time, causality, &c., which enter into its constitution, and which, as the conditions of the possibility of objects of knowledge could bear themselves, are implied in such objects. His method was that which is the general method of inductive reasoning, to apply an hypothesis to certain data, and to modify it, as appeared necessary from the result of the test of adequacy to the explanation of these data. His findings were in outline these: Berkeley and Hume showed that things cannot create thought, or exist otherwise or in any other sense than for thought. Therefore, thought must create things. But we find an inexhaustible material in nature which cannot be understood as the product of thought—the *matter* of perception as distinguished from the formal relations which are found to be exclusively the work of thought in knowledge; this formless matter Kant declares to become the object of knowledge—that is to attain reality—in so far as it is brought under two pure *a priori* forms, which belong exclusively to mind, space, and time. But in the constitution of the real there is something more implied, for space and time, taken by themselves, are merely the *formal possibilities* of spatial and temporal arrangement. Kant now shows that the matter of perception—the raw material of sensation of which all we can say is that it is wholly meaningless and without reality, excepting as thought makes it otherwise—is determined in the two pure forms of perception in the fundamental relations which he terms "categories," and which include not only quantity, quality, substance, cause and effect, &c., but every other relation of experience. The main difficulty in understanding Kant arises from the tendency to forget that the process of creation, which has just been in outline indicated, is not a process taking place in space and time. It is a process of pure thought which can never be made the object of knowledge, because, as has been already stated, knowledge with its distinction between subject and object implies, these very spatial, temporal, and other relations which are themselves logical elements in the process. Such thought can never be the property of an individual organism, completely dependent on what surrounds and has been before it. The finite self cannot be taken to explain the process through which, like the rest of existence, it is created. In making itself its own object thought is presented as an individual, limited like other individuals and conditions, within the field of experience. We only grasp Kant's meaning when we realise that by the thought which he finds to be creative of the objective universe, he does not mean the mind of an individual, but an intellectual activity which cannot itself become an object of knowledge, because in it and by it is created the very distinction between subject and object. Thought in this sense is pre-supposed by and is logically prior to all existence. Since it can operate in its construction of the unformed manifold of sensation into reality, only in the forms of space and time, reality is limited in its possibilities to what can be represented as existent in space and time; and from this it follows that knowledge is limited by imagination. But though our reasoning is thus only valid in so far as it is confined to actual or possible experience, thought has still, according to Kant, a power of extending itself by means of the categories alone beyond these limits, a procedure which leads to inevitable contradictions when an attempt is made to apply conclusions reached in this way to experience. It is just here that Kant's teaching becomes of interest to science, for these contradictions are the very ultimate difficulties of science, about which so much has been said of late. Kant discusses them at great length, and reference may be here made, by way of illustration, to his solution of the difficulty in the conception of the atom. In actual *experience* we cannot meet with, or in possible *experience* imagine an atom that is not of finite dimensions. Yet *reasoning* without reference to experience leads us to the inevitable conclusion, that whatever is of finite dimensions is further divisible *ad infinitum*. We predicate of the atom simultaneously that it is, and is not of finite dimensions. But in the first case we mean a conceivable object of perception in space; in the second, an unrealisable conception of thought from which no valid inference can be drawn as to reality. The two sorts of knowledge are wholly distinct, and hence their apparently contradictory results are not real contradictions. The difficulty arises not from mistaken scientific reasoning, but from the intrinsic nature of knowledge itself.

Between the representations of the relations of matter in space and time and the figments of abstract *à priori* reasoning, Kant goes on to show that there is an intermediate operation of thought, which, while it does more than create mere figments, yet does not create the real, although it modifies it. Its results are exemplified in those aspects under which the world is presented as beautiful or the reverse, and as organised. Organisation,

for example—the characteristic of which may roughly be said to be that the whole determines its parts—is a species of relation which is unreal, in that it cannot be represented as a fact in space and time. For *quâ* space and time what we call and must think of as an organised whole, is merely a mechanical aggregate of parts which are external to, and independent of each other. Yet the knowledge of nature implies that the conceptions of organisation are real in the sense that experience *suggests* and forces them upon us, and without them nature would not only seem quite different from what it is, but could not be a connected whole at all. In other words, while an aggregate of purely mechanical relations is logically conceivable, such an aggregate would necessarily be quite different from the universe as known to us. The recognition of nature as beautiful and as organised is essential to its existence as nature, and these aspects cannot be got rid of although they are not real in the sense that the mechanical aspects are real. There are thus different phases in, or kinds of knowledge, all arising out of the ultimate constitution of intelligence. This result carries with it the solution for Kant of a number of difficulties. To ask, for example, how that which is organised springs out of an environment which is not organised, is to mistake a problem of knowledge for a problem of the relation of the objects of knowledge. For there is no line of demarcation which separates the organism from its environment. We speak as if there were such a line, because, for the purposes of advancing the limited knowledge of the individuals (which, because it is conditioned by space and time, cannot comprehend the whole universe *sub specie æternitatis*), it is convenient to abstract now from one sort of relations, now from another, and to talk of things as if they presented the aspects *only* of mechanism, or *only* of organisation. Kant declared that the twofold aspect was everywhere potentially present, because of the twofold operation of thought in the constitution of things.

Whether Kant was right in his conclusion that there were different *kinds* of knowledge, or whether he ought not to have taught that there were rather different stages than kinds, this is no place to inquire. When the systems of the late German philosophical writers have been stripped of what is at the same time most prominent and most useless in them, it will be found that they contain much valuable and detailed suggestion upon this point. It may be that Kant's theory of knowledge is imperfect, and that his distinctions are in many cases artificial and unwarrantable. But his criticism forms the basis of a new departure in investigation, and it cannot be understood without being to a great extent assented to. Not the least of his achievements is that he has sifted to their foundation and placed in a new light such metaphysical abstractions of science as matter, cause, organisation and mind, and has shown why and in what sense they give rise to problems which appear insoluble. His method was intrinsically the same as that of science generally, and to him belongs the credit of having brought science and philosophy into a definite connection. Those who have best followed his teaching have most clearly understood that the future of philosophy is to be looked for, not in a slavish adhesion to Kant's or any other system, but in the detailed application of his principles, to the critical investigation of the methods of particular branches of empirical inquiry. Already the effect of such an application has been shown in the new conception of history which has resulted from it, and there are indications that the time is not far away when men of science will begin to consider the position of their special departments in the light of the theory of knowledge.

It remains to be considered how far Professors Max Müller and Noiré have succeeded in making Kant intelligible to an English-speaking public. One cannot help feeling how much better the work would have been had it consisted simply of one volume containing the translation of the first edition of the "Kritik," with that of the passages from the second edition printed in the first volume. Of Prof. Noiré's Introduction it is difficult to speak with any satisfaction. It presents just such a view of the history of philosophy previous to Kant's time as used to be current in the days of Sir William Hamilton. The author's study of philosophy has apparently been the work of his leisure moments. To suppose, as both he and Prof. Müller seem to suppose, that a further development of the theory of knowledge is to be looked for from philology, is simply to ignore Kant's distinction between knowledge as a fact of experience and as that which is constitutive of experience. As has already been pointed out, it is in the former sense only that thought can be treated as dependent upon a particular organism, and consequently as related to language. In the latter sense alone, on the other hand, is it that which is the subject of Kantian investigation. Those who desire an historical introduction to German philosophy will do well to consult the pages of Prof. Caird rather than of Prof. Noiré.

As regards the translation, the comparison of what has been recently published by Dr. Hutchison Stirling with the work of Prof. Müller is not to the advantage of the latter. No doubt the work is grammatically excellent, and the style and accuracy by far superior to that of the old translations, but it lacks that grasp of the subject which enables Dr. Stirling, in translating the first part of the "Kritik," to reproduce not merely German words by English words, but German ideas by English ideas. Yet while it may be that the "Kritik der reinen Vernunft" remains yet to be translated, this is because the reproduction in the English language of such a work must fulfil ideal requirements before it can be accepted as satisfactory. Prof. Müller has given to students of philosophy much that they did not possess before, and that is far superior to the ordinary work of this sort. His offering is indeed what he intended it to be, a fitting commemoration of the centenary of the date on which was published the treatise which was destined to revolutionise philosophy. A faithful and literal translation of that treatise is a boon for which he will not find the public ungrateful to him.

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OUR BOOK SHELF

Insects Injurious to Forest and Shade Trees. By A. S. Packard, jun., M.D. Bulletin No. 7, United States Entomological Commission, pp. 275, 8vo. (Washington: Government Printing Office, 1881.)

THE industry and energy displayed by the United States official entomologists is astonishing, and the amount of the literature of economic entomology issued by them